

# CHAPTER 1

## Southern Bonneville Shoreline Trail (SBST) Case Study

Until the initiation of this Master Plan process, the SBST was seen as conceptually stretching ultimately from Brigham City, Utah, to Nephi, Utah, a length referred to on the BST website as “90 miles” (<http://www.bonneville-trail.org/>). Currently, 82 miles of a planned 180 miles of BST trail have been constructed in several large and many small segments and connecting pathways (see Table 1 and Figure 1). Government officials and community NBST supporters in Cache and Box Elder Counties want to learn from those already engaged in this effort.

**Table 1. Summary of existing and planned Southern Bonneville Shoreline Trail (SBST) segments.**

BONNEVILLE SHORELINE TRAIL MILEAGE <sup>a</sup>		
County	Existing Trail Miles	Planned Trail Miles
Davis	15	28
Weber	10	23
Salt Lake	30	55
Utah	27	74
Totals	82	180

<sup>a</sup>Reported by the BST Coalition, March 2002.

Lead individuals were contacted in the City of Ogden, Weber County, Davis County, Salt Lake City, Sandy City, Draper City, Salt Lake County, and Utah County to gather lessons learned from their SBST development efforts and standards that they have used in constructing trail segments and trail heads. In all cases, individuals were supportive of the northern extension of the BST and expressed a willingness to assist communities new to trail development efforts in minimizing mistakes. The case study outline is shown in Appendix A. Key individuals who have responded to this request for information include:

- ❖ Jim Price, Mountainlands Association of Governments, Utah County Segments
- ❖ Don Davis, Salt Lake County Recreation, Salt Lake County Segments
- ❖ Aric Jensen, Davis County Parks and Recreation, Davis County Segments
- ❖ Geoff Ellis, Weber Pathways, Weber County Segments





- ❖ Greg Montgomery, Ogden Trails Network, Ogden City Segments
- ❖ Tony Botello, Wasatch - Cache National Forest, U.S. Forest Service (USFS) Standards
- ❖ Rick Reese, Bonneville Shoreline Trail Committee, Regional System and SLC Segments

## **History of the Bonneville Shoreline Trail (BST)**

The Bonneville Shoreline Trail concept began in 1990 as an effort to preserve a heavily used mountain biking, jogging, and walking pathway along a corridor between Emigration Canyon and Dry Canyon on the east side of Salt Lake City. The southern part of this segment went along a natural gas pipeline and into This is the Place State Park. The Park wanted to fence off its growing area of historic buildings and charge fees for admission. Recreationists did not want to be fenced out of their traditional use area or pay fees. A solution was reached that created a fenceline below the recreation corridor. Similarly, to the north of the Park, the University of Utah's Research Park and Red Butte Garden and Arboretum were growing, with the Garden concerned about fencing to protect its horticultural collections, a fee area, and Research Park management considering new development that might terminate the recreation corridor. By 1992 the University of Utah agreed to an unspecified recreation corridor to connect through Research Park and the University Medical Center area to Dry Creek Canyon to the North.

At about the same time, Salt Lake City policy, promoted through unanimous support of the Mayor, City Council and Planning Commission staff, adopted the BST as a formal trail system throughout the foothills east and north of the City. In 1991, the Bonneville Shoreline Trail Committee was formed as a 501(c)(3) nonprofit corporation to promote regional development of the BST and focus on implementation in Salt Lake County. Challenges from developers and a minority of residents were met with overwhelming public support for this public policy. At this point, the City of Ogden, the Mountainlands Association of Government, and Davis County adopted the identity of the BST for foothill trails, plans, and segments already in place. In 1994 representatives of entities in the four-county area (Utah, Salt Lake, Davis, and Weber) agreed with the BST Committee that there should be one continuous foothill shoreline trail along the foothills of ancient Lake Bonneville with uniform values and defining characteristics. By 1995 a BST logo and signs were finalized to tie the BST together as the backbone of a regional trail network.

In 1997, the Bonneville Shoreline Trail Coalition was established to share expertise and resolve common problems along the full length of the BST. A Memorandum of Understanding, which defined trail objectives and criteria, was created for each municipality and county implementing segments of the BST to sign and support. The MOU is a statement of consent and accountability to follow the common values established by the BST Coalition. The MOU promotes agreement on what the BST is and sets criteria for use of the BST Logo.



## **Standards**

Using the ancient Lake Bonneville shoreline (approximately 5,100 feet in elevation) as a target, an effort has been made to establish SBST segments on that bench where possible. Specifically, the SBST has been located behind housing and below USFS land at the visual “toe-of-the-slope” along the western foothills of the Wasatch Mountains along Utah’s urbanized corridor. The USFS guidelines have been traditionally followed in BST construction, featuring a 2- to 4-foot wide cleared dirt trail surface laying within a 10-foot easement or right-of-way whenever possible. In most cases, the trail is on public land (e.g., city, county, or USFS).

Trail heads along existing BST segments consist primarily of a wooden kiosk or wooden trail sign. Trail heads range from roughed-in dirt parking areas to paved trail heads with lined parking spaces and restrooms. Many trail heads are at the end of city streets with no improved parking. There is a standard BST logo that is used on most signs, and a standard signpost that is used on most trail segments (see Chapter 3). Equestrian use is formally supported by Draper City and for several miles along existing trail segments in Utah County. At this point, there are no horse uses supported on segments in Salt Lake City, Davis County, or Weber County. Trail head standards for full size horse trailer parking and loading/unloading areas have not been established.

## **Responsibility**

Existing BST segments have been planned, adopted, and implemented piecemeal within each political jurisdiction, usually by a city or a county. There is no entire trail-wide organization at this point, although a BST Committee, headquartered in Salt Lake City, was established in 1991 to promote construction along the entire length of the trail. The BST Committee’s financial and labor resources were concentrated on the successful development of the 15-mile-long Salt Lake City Segment, largely completed in 1999.

The BST Coalition, a voluntary working group of representatives of communities actively implementing and managing segments of the BST, meets most months and endeavors to establish, promote, and maintain standards; share expertise; and identify and resolve critical issues in trail development. Each community that chooses to construct a portion of the BST is encouraged to sign a Memorandum of Understanding (MOU) (shown in Appendix B) that indicates a community’s acceptance of values and standards for the BST. The BST Coalition is currently working with the Utah State Automated Geographic Reference Center to digitize all known physical attributes of the constructed and planned trail segments in Weber, Davis, Salt Lake, and Utah Counties.

Each community organizes resources differently in creating individual segments of the BST, in the way that works best for them. In Davis County, unincorporated Salt Lake County, and the Cities of Sandy and Draper, lead responsibility for planning and implementation lies with government. In Utah County and in Ogden City, informal but influential committees of city-designated citizen representatives and government staff work together on key segments. In Weber County and Salt Lake City, private nonprofit organizations have taken the lead with cooperation from government organizations.



## **Funding**

Funding for construction has come from a variety of public and private sources. State-awarded funds have been used in each totaling \$797,005 to date. Individual communities have contributed resources to trail construction. In many cases, existing roads and pathways were designated and improved. Where new pathways were needed, construction has largely been implemented by crews of volunteers trained to follow USFS hand tool methods. In some places, National Guard resources were used as part of their exercise activities.

Two significant private family foundation grants were received to cover costs associated with the Salt Lake City Segment and the Parley's Crossing Trail Connection at the north end of unincorporated Salt Lake County. Several million dollars have been made available through the Federal Land and Water Conservation Fund for land acquisition by the USFS to facilitate BST construction. To date, some of these funds have been spent on projects in Salt Lake and Weber Counties, but most of the funds remain unspent. The USFS and Congress have acknowledged the importance of the BST as a regional system.

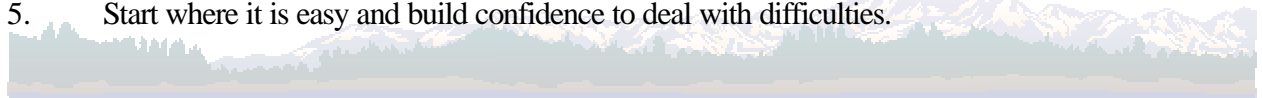
## **Maintenance and Management**

Maintenance has not been a substantial expense because of the short time that most segments have been operational and, it is hoped, because of the quality of construction. Sign replacement has been significant in some segments, especially until usage builds up, promoting a "self-policing" effect that discourages would-be vandals. In general, increased use seems to also minimize crime against persons and adjacent private property, as reported second hand from law enforcement staff in several counties. In most cases, city and county governments have agreed to maintain trail surfaces and trail heads. There has been some limited success in recruiting service groups to adopt and maintain parts of the BST, thereby relieving the burden on government resources.

## **Lessons Learned along the Bonneville Shoreline Trail (BST): 1991 to 2001**

For the past 10 years, local governments, trail user groups, and interested citizens have worked hard to plan and implement the BST. Here are 10 lessons learned from their combined efforts.

1. Each community builds its own piece; put the BST in your community plan as soon as possible.
2. Create a partnership between advocates and government officials; use what structure works.
3. Reach out to a broad range of stakeholders in planning, implementation, and maintenance.
4. Make contact early with impacted landowners; respect, involve, and accommodate them.
5. Start where it is easy and build confidence to deal with difficulties.



6. Be flexible; strive for standards but do what is possible rather than nothing at all.
7. Use available expertise; others have done what you are trying to do and want to help you.
8. Do not be put off by barriers; plan for what is needed and build support for what is possible.
9. Share the burden of advocacy; do not burn out leaders and lose opportunities when they arise.
10. Keep the vision strong; patience and persistence pay off.

## Corridor Context Analysis

The NBST is proposed to generally follow the ancient Lake Bonneville terraces through Box Elder and Cache Counties. It will go through private and public lands, and near or through many communities as it winds its way to the Idaho border. The following sections provide general context information for the trail corridor area.

### Lake Bonneville Shoreline Geology

Lake Bonneville, one of the great pluvial lakes of North America, existed from about 32 to 14 thousand years ago. The lake was 325-miles long, 135-miles wide, and over 1,000 feet deep. Remnants of this huge lake include the Great Salt Lake, Utah Lake, and Sevier Lake (see Figure 2).

Lake Bonneville was a terminal lake in a closed basin. The water levels of the lake were effected by precipitation and evaporation. The lowest point of the basin that controlled the maximum height of the lake was Red Rock Pass, which had an elevation of 5,090 feet. Approximately 14,500 radiocarbon years ago, the Red Rock Pass threshold (in the north end of Cache Valley in Idaho) failed and a catastrophic flood occurred, causing the lake to drain through the pass into the Snake River. Three major shorelines were left by Lake Bonneville and one by the Great Salt Lake. The Provo and Bonneville Shorelines of Lake Bonneville are very prevalent today as terraces or benches along the Wasatch Front's foothills. The Stansbury Shoreline of Lake Bonneville and the Gilbert Shoreline of the Great Salt Lake are less obvious and found lower in the valleys.

Cache Valley was filled with the northeastern arm of Lake Bonneville, referred to as the Cache Bay, whose inlet/outlet was Cutler Canyon near the Cache and Box Elder County border. The lake occupied Cache Valley from about 25,000 to 13,000 years ago. Utah State University and the Church of Jesus Christ of Latter-day Saints Logan Temple are both built on a delta of soil and rock that was washed into Lake Bonneville by the Logan River. The unconsolidated sands and silts deposited on the floor of Lake Bonneville form the surface of Cache Valley, and, when irrigated, make excellent agricultural soil. The Bonneville Shoreline in Cache Valley is less prevalent than the shoreline along the Wasatch Front. Generally, the Cache Valley Shoreline is represented by distinct segments that are separated by large gaps.



For the purposes of planning the NBST, the Lake Bonneville Shoreline in Box Elder and Cache Counties is identified to be at approximately 5,100 feet elevation. Although in many areas it will not be possible or feasible to follow the true shoreline, it is still a goal of the overall Master Plan process. See Figure 2 for an illustration of historic Lake Bonneville.

## **Existing Trail Planning Efforts**

### ***City***

#### **Brigham City**

The Brigham City Recreation and Parks Department has developed a small city trail system and a trail development plan for future trail projects. It has identified two key areas on the south and north sides of Highway 89 for new trailheads. The areas are planned to provide parking, restrooms, and informational kiosks. One of the areas is next to Box Elder Creek and incorporates donated land from the Parson Gravel Pit. The other possible trail head is part of the Shoshone Trail Complex. These areas are identified as trailheads for the NBST in Brigham City. The city has planned linkages with surrounding communities at the Ogden Brigham Canal and a cattle crossing under Interstate-15 (I-15) for a trail to the Bear River Migratory Bird Refuge.

#### **Honeyville**

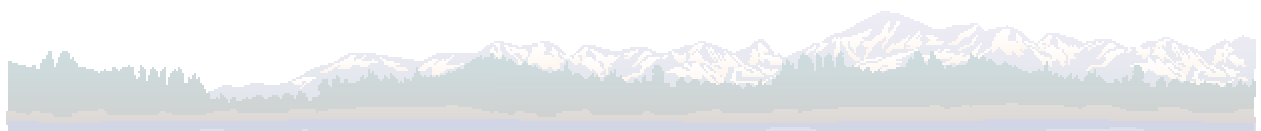
Honeyville currently has no trail system plan or policy, but the community is very interested in developing trails.

#### **Hyrum**

Hyrum City is in the process of developing a trail plan. No official trail information is available at this time.

#### **Hyde Park**

A trail system has been proposed in Hyde Park, but it has run into stiff opposition from property owners that live along the community's canals. Hyde Park City currently has no trail plan or policy.



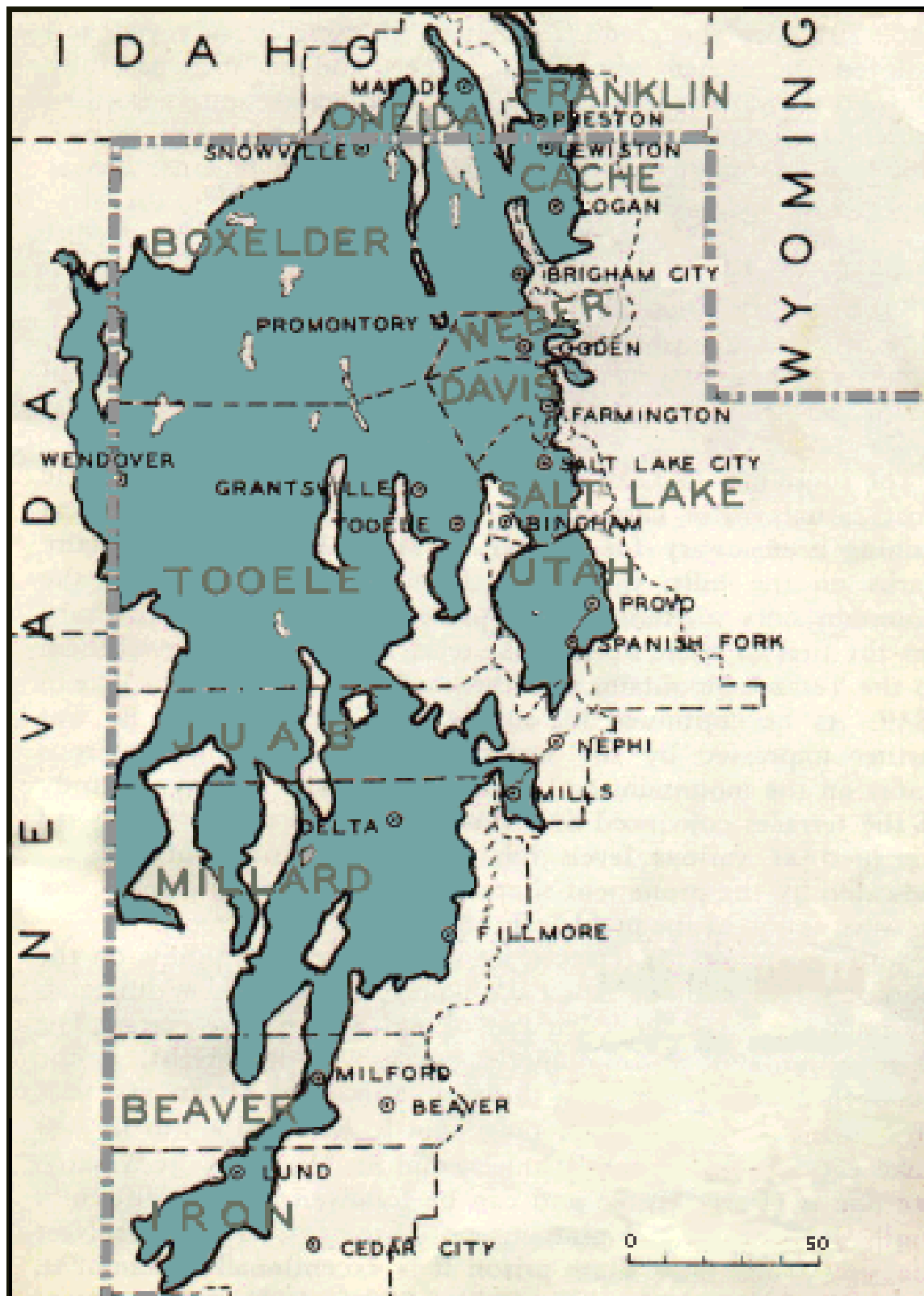


Figure 2. Historic Lake Bonneville.



## **Logan**

The City of Logan has an extensive recreational trail system with plans for new trails that will be constructed in the near future. One of these future trails is the first segment of the NBST that will be constructed between Logan Canyon and Green Canyon. The northern portion of this trail is in North Logan City. The cities plan to construct this segment (approximately 2 miles) during summer 2002. See the alignment analysis section, Segment 8 - Logan to Smithfield, for more detailed information.

## **Mantua**

Mantua has a master plan that includes trail development policy. There are some established trails and unimproved roads in and around the town that have great potential for trail system development.

## **Mendon**

Mendon has plans for a future trail system that will be looped around the community. The trail will connect parks and open spaces to neighborhoods and the business district.

## **Newton**

A trail system has been discussed through development of the city's general plan, but no official information is available. The planning commissioner is interested in hearing any possible ideas regarding links to the NBST from Newton.

## **Nibley**

The city council is actively pursuing the acquisition of open land along the Blacksmith Fork River for the purpose of creating a park system that would be linked to a trail system.

## **North Logan**

The *North Logan Parks and Trails Plan* provides direction for the future acquisition of property for public use, including property for recreational trails. This includes a linear park trail system proposed along existing drainages, the Hyde Park and Smithfield Canal, and the Utah Power and Light (UP&L) powerline corridors. The UP&L powerline corridor trail could function as a segment of the NBST. Trails planned within the foothill area will be designated for a variety of uses, such as hiking, bicycling, equestrian, and cross country skiing. North Logan City also protects existing footpaths and corridors planned for future trail development in their Subdivision Development Code. Developers are required to leave the corridors undeveloped and grant the city a trail easement for public trail development.

## **Pleasant View**

The *Northview Trails Master Plan* (Northview Trails Committee 1991), details trail development for North Ogden City and Pleasant View City. This plan was never implemented, and the Northview Trails Committee has disbanded.

## **Paradise**

Paradise currently has no plans for a trail system but is interested in trail development.



## **Perry**

Perry currently has an active trails committee working on specific projects within the city.

## **Providence**

Providence is in the process of developing a recreational trails plan that links parks and existing trails.

## **Richmond**

The *Richmond City General Plan* (Richmond City 1999) states recreational paths and trails will be developed and linked to existing and proposed opportunities within the community and adjacent public lands. The general plan illustrates proposed trails along the Cherry Creek Ditch and the Upper High Creek Canal that could function as a portion of the NBST. The proposed City Creek and the Cherry Creek trails could link to the NBST.

## **Smithfield**

Smithfield is currently working with the State of Utah to develop a trail between Forrester Avenue and 1000 East.

## **Wellsville**

Wellsville City is in the process of developing a recreational trail system plan. The city has expressed a great interest in the NBST.

## **Willard**

There is public interest in establishing a trail system in Willard, but there is currently no trail system plan or policy.

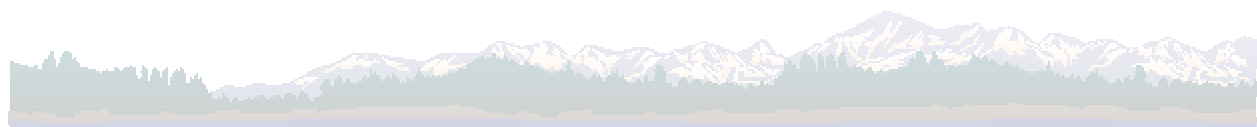
## **County**

### **Box Elder County**

Box Elder County has recently published a Box Elder County/Interagency Travel and Recreation Map illustrating the location of existing motorized and nonmotorized recreational travel corridors. Along the Wasatch and Wellsville Mountain foothills, the plan shows the location of public access roads. The only nonmotorized trails illustrated in this area are on Federal and State lands. Some motorized corridors illustrated in the plan above Perry may be possible locations for the NBST.

### **Cache County**

The *Cache County Countywide Comprehensive Plan* (Cache County Corporation 1998) transportation element goals include development of convenient alternative modes of transportation. The plan's strategies for creating this include development of parkways for pedestrians, bike paths, and walking paths. This portion of the Comprehensive Plan has yet to be implemented. Cache County does not currently have a parks and recreation department nor any recreational trail policies.



## **State**

### **State of Utah**

Governor Leavitt has initiated the Utah Statewide Trail Initiative (Appendix C) in an effort to create a statewide trails plan. This project will develop a framework for the future funding process, planning, development, networking, and maintenance for motorized and nonmotorized trails. The State of Utah considers the BST system the highest development priority.

## **Federal**

### **U.S. Forest Service (USFS) North Ogden to Pleasant View Trail Report**

The *North Ogden to Pleasant View Trail Report* (Barry 2000) identifies alternative locations for the SBST from North Ogden to Pleasant View. The plan identifies trail corridors along the Ogden-Brigham canal road, power line corridors, old four-wheel drive roads, and game trails. The plan says the biggest challenge for creating a trail route in this area is finding a way north through the Pole Patch subdivision. Two alternative locations in this area identified by the plan include: (1) following the powerline corridor, with the trail ending where the corridor intersects Pole Patch Road, and (2) following the Ogden-Brigham Canal road to the Weber/Box Elder County border.

## **Other**

### **PacifiCorp - Cutler Reservoir Resource Management Plan**

The *Cutler Reservoir Resource Management Plan*, which includes plans for recreational walking trails in the reservoir area, is currently being implemented and scheduled for completion in late 2001. The walking trails, generally unmarked routes that get recreationists into the wetland areas, include:

- ❖ the Railroad Walking Trail, a loop trail that follows an abandoned railroad corridor and bridge crossing south of Benson Marina,
- ❖ the Bud Phelps Wildlife Management Area Walking Trail, and
- ❖ the Little Bear River Walking Trail.

### **Utah State University - Recreation Planning Course Project**

In 1999 a recreation planning class at Utah State University (USU) conducted a feasibility assessment (Busch et al. 1999) of the NBST in Cache Valley. The study specifically addressed the route the trail might follow, a biophysical assessment of the trail route, public attitudes toward the proposed trail, an interpretation of amenities along the proposed route, possible conflicts with the construction of the trail, and a case study specifically looking at Green Canyon along the NBST.

The routing section of the document details important nodes along the proposed trail. Blacksmith Fork Canyon, Millville Canyon, Providence Canyon, Logan Dry Canyon, Logan Canyon, Green Canyon, and Green Canyon North were noted as having significance along the proposed trail. During the biophysical assessment the geology and geography of the shoreline; the impacts of recreational users of the trail might

have on the wildlife; the impacts the trail users would have on the plant life; and the threatened, endangered, and sensitive species were examined along the trail.

Public attitudes of the county, surrounding cities, business community, local landowners, neighborhood organizations, and environmental groups were recorded to catalog any support or objection to the proposed trail system. The majority of the objections were from the private land owners not wanting to sacrifice privacy and safety.

The plan also discusses trail interpretation, safety, and user conflicts. A community information packet that contains information on organizing a neighborhood trails group, supporting and maintaining a trail in your community, and community and city official contact information was also included in the document.

## **Population**

As of the 2000 census, there were 42,745 persons in Box Elder County and 91,391 persons estimated in Cache County. This equates to 78 persons per square mile in Cache County and only 7 persons per square mile in Box Elder County. The majority of persons in Box Elder County live along the foothills in the NBST corridor area, making this figure somewhat irrelevant. In general, the highest density of population along the NBST corridor is in Cache County, specifically in the Logan Urbanized Area. This higher density translates into a higher density of trail usage in the urban area.

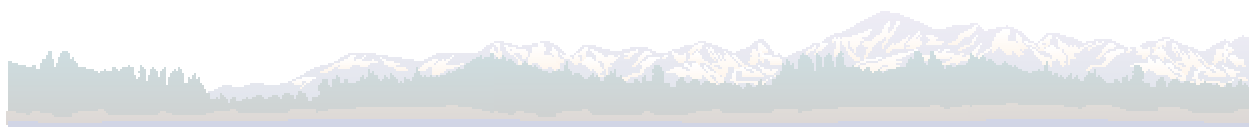
## **Trail Advocacy Groups**

Table 2 is a list of persons who are actively involved in trail development or activities related to trail development. They have had direct contact with consultants in terms of providing input on the plan and its process, promoted participation by their constituents, and indicated interest in being further involved in the development of the NBST.

## **Northern Bonneville Shoreline Trail (NBST) Planning Activities**

### ***Northern Bonneville Shoreline Trail (NBST) Public Involvement Activities***

Public involvement was solicited throughout the project, focusing primarily on two series of public meetings at the beginning and end of the project. These two input opportunities are referred to as Scoping, taking place in late October through November 2001 and Implementation, taking place later in January through February 2002. In the Scoping phase, information was solicited on prioritizing trail segments, confirming values for the trail system and gauging general support and interest in further involvement. In the Implementation phase, information was sought regarding feedback to draft plan recommendations on segment alignment alternatives, usefulness of the plan document, and general comments on the planning process. In both phases, an estimated total of 182 individuals attended four public meetings and 150 submitted project input forms or letters (Appendix D).



**Table 2. Individuals interested in participating in Northern Bonneville Shoreline Trail (NBST) development.**

INTEREST	INDIVIDUAL	GROUP
<b>Equestrian</b>	Blake Pulsipher	Back Country Horsemen of Utah, Cache
	Dave Harris	Back Country Horsemen of Utah, Cache
	Paul Keeler	Rider, Brigham City
	Cindy Summerhill	Rider, Willard
	Bruce Kartchner	Back Country Horsemen of Utah
	Doug West	Back Country Horsemen of Utah
	Dave Howells	Back Country Horsemen of Utah
	Tony Cross	Cross Western Wear, Ogden
	Cheryl Hurley	Rider, Ogden
<b>Cycling</b>	Greg Beveridge	Mountain Biking Group
	Marc Yap	Logan Race Club
	Hal Cain	Cache Veloists Touring Club
<b>Trail Planning and Construction</b>	Michael Berry	U.S. Forest Service, Statewide BST leader
	Tony Botello	U.S. Forest Service, Trails Coordinator (Ogden and Logan)
	Rick Vallegos	U.S. Forest Service, Ogden Ranger District
	Craig Pettigrew	Utah State Lands, Fire, and Forestry
	Bill Farrand	National Park Service, Rivers & Trails Conservation Assistance Program
	Doug Muir	U.S. Forest Service, Wasatch Cache National Forest
	Jim Price	Mountainland Association of Governments, Utah County BST
	Shawn Seager	Mountainland Association of Governments, Utah County BST
	Trish Murphy	Mountainland Association of Governments, Utah County BST
	Wendy Fisher	Utah Open Lands, Conservation Easements
	Terry Green	State of Utah Parks and Recreation, Governor's Trail Initiative
	Janine Jarva	State of Utah Automated Geographic Referencing Center, BST Geographic Information System Mapping Coordinator
	Barbara Kuhnel	BST North Webmaster
	Sean Damitz	Utah Conservation Corps, Trail Construction
	Steve Burr	Utah State University, Institute for Recreation and Tourism



INTEREST	INDIVIDUAL	GROUP
Trail Advocates	Jay Aguilar	Cache Metropolitan Planning Organization
	Bobbie Coray	Cache Chamber of Commerce
	Lisa Leischman	USU Transportation Director
	Brent Windley	USU Planning Director
	Jeff Gilbert	Bear River Association of Governments
	Cindy Hall	Bear River Association of Governments
	Ron Vance	U.S. Forest Service, Logan Ranger District
	Dan Johnson	Mount Logan Middle School
	Keith Shaw	VCC Contact
	Eve Davies	PacifiCorp
	Claudia Conder	PacifiCorp
	Roger Rigby	Citizen
	Kelly Pitcher	Fire Chief, City of Logan
	Maridene Hancock	Bridgerland Travel Region
	Terrel Huppi	Citizen
	Tim Jorgensen	North Logan Fire Department
	Curt Gordon	Hyde Park City
	Tom LaBau	Hyrum City Zoning
	Russ Akina	Parks and Recreation Director, City of Logan
	Jen Negus	Secretary
	Paul Morgan	Geographical Information System Manager, City of Logan
	Kris Kvarfordt	Logan City Intern
	Nathan Peterson	Logan City Intern
	Rachel Fawcett	Logan Transportation Department Transportation Coordinator
	Michelle Mechem	Planning, City of Logan
	Dale Huffaker	USU Vice President of Administration Services

INTEREST	INDIVIDUAL	GROUP
Trail Advocates (cont.)	Scott Butler	Mantua City Council
	Rob Rasmussen	Thiokol Mountain Sports Club
	Adam Packer	Northern Utah Off-Highway Vehicles Association
	Allen Keller	Box Elder Trails Committee
	Jerry Mason	Box Elder Trails Committee
	Carol Billings	Perry City Council
	Ben Boyce	Brigham Parks and Recreation
	Shirley Scofield	Tremonton City Council
	Tami Coleman	Utah Native Plant Society, Cache
	Lance Loveland	Loveland's Cyclery in Brigham City
	Bryan Dixon	Audubon Cache Chapter
	Samantha Macfarlane	Common Ground, Accessibility
	Jim Sinclair	Cache Hikers
	Rene Tanner	Hiker, Pleasant View
	Bob Davis	U.S. Forest Service, Pleasant View City Council
	Marilyn O'Dell	BST Coalition
	Rob MacLeod	BST Committee (Salt Lake City)
	Rick Reese	BST Committee (Salt Lake City)
	Jim Byrne	BST Committee (Salt Lake City)
	Scott Earl	Sandy City Parks and Recreation
	Don Davis	Salt Lake County, Parks and Recreation
	Greg Montgomery	Ogden Trails Network
	Geoff Ellis	Weber Pathways
	Aric Jensen	Davis County Parks and Recreation
	Tony Varilone	Soda Springs, Economic Development Director
	Joel Lundstrom	Logan City Parks and Recreation

INTEREST	INDIVIDUAL	GROUP
Private Land Issues	Arthur Douglas	Farmer's Union
	Sterling Brown	Utah Farm Bureau, Northern Utah Representative
	Sylvia Talbot	Utah Association of Conservation Districts
	Georgia Sullivan	White Orchard Family Representative

### Scoping Phase

Two public meetings and two elected official focus groups were held early in the planning process, one on October 24, 2001, in Brigham City and another on October 29, 2001, in Logan. Print articles and public notices promoting these meetings appeared in the *Box Elder News Journal*, the *USU Statesman*, and the *Logan Herald Journal*. Articles covering the public meetings appeared in these publications, in the *Salt Lake Tribune*, and in the *Ogden Standard Examiner*. Public service announcements in advance of the meetings were placed on three radio stations, and interviews with project team members occurred on three different stations. The project was also promoted with an online open house and input form at the BST website. Over 100 individual telephone contacts were made to promote these meetings and 500 flyers were circulated, primarily in Brigham City and Logan. Special outreach was made to equestrian, bicycle, and hiking organizations.

### Project Input Forms

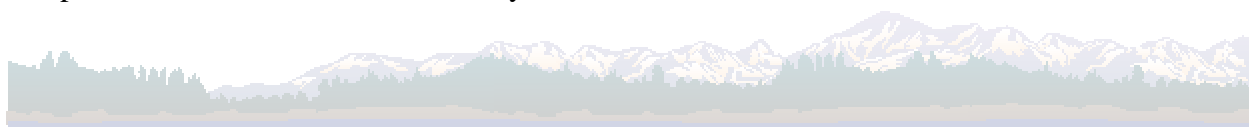
The BRAG staff estimated an attendance of 45 at the two meetings in Brigham City, with 36 submitting a project input questionnaire form (Appendix D), and an attendance of 85 to the two meetings in North Logan with 69 submitting a form. Of these two groups, 13 government officials attended the Box Elder Focus Group and 17 attended the North Logan Focus Group. In all, 111 forms were received, including 4 sent online and 2 mailed in to BRAG offices.

### Respondents' Affiliation

- 43 Nonaffiliated
- 30 Listed an organization they were involved with, with the largest number associated with recreation, environmental issues, and land ownership
- 38 Government officials, including elected officials, candidates for public office, and staff of local, State, and Federal agencies

### Response Distinctions Resulting from Affiliation and Place of Residence

For the most part, large differences cannot be detected in responses as a result of affiliation. For the purposes of this summary, all respondents are added together, giving them each equal weight. Distinctions can be viewed by an examination of the tabulations presented below. Since more respondents reside in Cache County than in Box Elder County, more interest in input was generally provided for Cache County, and recommendations for priorities were in developing Cache County trail segments and links with some exceptions that can be seen in the summary below.





## Overview of Public Input

There is significant support for trail development from government officials and the citizens representing the involved communities of both Box Elder and Cache Counties. The values of the existing BST are supported by residents who would extend this trail to the north into Idaho. There is adequate interest in joining trail organizations and working for implementation of trail segments.

Highlights from the response form include [number of questionnaire items providing further response detail shown in parentheses ( )]:

- ❖ Strong support of trail benefits of access to foothills and recreational opportunities (1)
- ❖ Concern about how implementation is accomplished with the existing BST (2)
- ❖ Proposed goals for trail strongly supported (3)
- ❖ Trail should connect to mountain recreation opportunities, city recreation facilities, existing trails (6)
- ❖ Canals and utility corridors, as well as existing roads and trails, all could support trail (7)
- ❖ Construction, use of private land, and public safety are implementation priorities (8)
- ❖ Significant involvement interest expressed for planning, construction, and promotion (14)

A detailed summary of the January/February questionnaire is provided in Appendix D.

## Implementation Phase

Two public meetings were held at the end of the planning process. One on January 29 in Brigham City and another on February 4 in Logan. Print articles and public notices promoting these meetings appeared in the Box Elder News Journal and the USU Statesman. Notices of a public comment period concluding February 21 appeared in the Logan Herald Journal. Articles covering the public meetings appeared in the Ogden Standard Examiner, the Box Elder News Journal, and the USU Statesman. E-mail and posted letters were sent to approximately 800 individuals to announce the meetings and inviting review of the draft plan document on the BST website, at BRAG offices, and at the Logan Public Library. Because of a 100-year storm on January 28, the Logan meeting was postponed for a week, and three area radio stations aired PSAs indicating the time change.

## Trail Builders and Users Focus Group

A meeting was held on November 13, 2001, in Logan for individuals representing groups of users, organizations, and government agencies that have been involved in trail development in Cache and Box Elder Counties. There were 17 individuals in attendance. The meeting focused primarily on construction and design issues, with some attention given to assessing community capability to organize and follow through with implementation once the Master Plan is adopted. The output of this meeting was used in the construction standards information shown in Chapter 3 and implementation discussion in Chapter 4. Minutes from the discussion are shown in Appendix E.



## **Future Public Involvement Opportunities**

The Master Plan creates a foundation from which interested communities can launch development of discrete BST segments within their political jurisdiction. Much more extensive public involvement will be required for the thoughtful consideration of implementation concerns “on-the-ground” in neighborhoods where the BST is actually planned, adopted, constructed, and maintained. Initial steps that interested communities can take in further consideration of individual segments of the NBST are shown in Chapter 4. To establish momentum in implementation, BRAG staff will schedule a set of meetings in 2002 to assist communities in moving forward with their individual segment planning efforts.

## **Natural Resource Analysis**

### ***Soils***

#### **Cache County East Bench**

The soils in this area of the NBST alignment consist of well-drained soils of the medium- and high-lake terraces. These soils are predominately well drained and have a loam to silty clay subsoil. These soils are nearly level to very steep and occupy lake terraces, alluvial fans, deltas, and escarpments. The Mendon, Avon, Wheelon, and Collinston soils formed in material derived from the Salt Lake Formation and contain an appreciable amount of volcanic ash. The Ricks, Timpanogos, Parleys, and McMurdie soils formed in the mixed alluvium and lake sediment derived mainly from limestone, quartzite, and sandstone. Elevations range from about 4,500 to 5,300 feet. The average annual precipitation is 15 to 20 inches, the mean annual air temperature is 45 to 50 degrees Fahrenheit, and the frost-free season is 110 to 160 days.

#### **Cache County West Bench**

The soils on the west side of the Cache Valley NBST alignment consist of well-drained soils to somewhat excessively drained soils. The well-drained soil associations are similar in drainage and general location, but they are contrasting in soil characteristics and vary somewhat in position and climate. The Nebeker-Hendrick Association consists of well-drained soils that have a silty clay loam and clay sub-soil. The soils are mainly strongly sloping to moderately steep and are on broad alluvial fans above the upper lake terraces. These soils formed in alluvium and colluvium derived chiefly from sandstone and quartzite rocks. Richmond-Sterling-Picayune Association consists of somewhat excessively drained, very gravelly and stoney loams and sandy loams. These soil are on very steep terraces escarpments, deltas, and foot slopes of mountains. The somewhat excessively drained soils are very gravelly. These soils formed in residuum, colluvium, and alluvium derived mainly from sandstone or quartzite and some limestone and shale rock.

#### **Box Elder County**

The soils along this portion of the NBST alignment consist of moderately well-drained to somewhat excessively drained soils of the high, medium, and low lake terraces and fans. They are silt, loams, and sandy loams that are cobbly or gravelly. The soils formed mostly in alluvium and colluvium derived from sandstone, quartzite, limestone, and some gneiss, schist, and lake sediments. A few soils formed in residuum derived from sandstone, quartzite, and limestone. The two most prevalent associations are Hupp-

Sterling-Abela and Fielding-Kilburn-Kidman. The Hupp-Sterling-Abela Association is characterized as well drained and somewhat excessively drained, gently sloping to very steep gravelly silt loams and gravelly loams on alluvial fans, lake terraces, escarpments and mountain foot slopes. The Fielding-Kilburn-Kidman Association is characterized as well-drained and somewhat excessively drained, nearly level to very steep silt loams, gravelly sandy loams, and fine sandy loams on lake terraces, benches, alluvial fans, and broad valley plains.

### ***Vegetation***

Native vegetation in the NBST corridor consists primarily of sagebrush and juniper grasslands, and oak and maple woodlands (Edwards et al. 1995). The southern Box Elder County portion of the NBST may contain small communities of oak woodlands, but is generally dominated by sagebrush and juniper grasslands. The northern section of trail in Box Elder County primarily contains sagebrush and juniper grasslands. In Cache County on the east side of the Wellsville Mountains, the NBST area includes maple woodland, grassland, and mountain riparian plant communities. Plant communities on the eastern side of Cache Valley include sagebrush and juniper grasslands interspersed with occasional maple woodlands and mountain and lowland riparian areas. The riparian areas are located in places where canyons drain into the foothills. The Cutler Reservoir area along Highway 30 contains extensive wetland plant communities.

### ***Wildlife***

Users of the trail will encounter a variety of mammals, birds, reptiles, and amphibians. The most abundant animals include: mule deer, elk, coyote, badger, skunks, and other small rodents, waterfowl, songbirds, ring-necked pheasant, sharp-tailed grouse, sage grouse, shorebirds, ducks, raptors (such as the bald eagle, falcons, hawks, and kites), snakes and frogs.

The proposed NBST connects Utah Department of Wildlife Resources (UDWR) wildlife management areas in numerous places in both Box Elder County and Cache County. This draft data set represents at-risk essential wildlife habitat areas in October 2000 as determined by Utah Division of Wildlife Resources biologists. For purposes of this effort, essential wildlife habitat has been defined as the habitat that Utah must maintain to meet the management objectives and the habitat conservation needs of all species of protected wildlife in the state. The Utah Division of Wildlife Resources welcomes the input of County Commissions, City Councils, and others on this draft data set.

The contact the route has with these sensitive habitats was minimized to protect wildlife from disturbance. The wildlife management areas the trail will come within 0.25 mile from include: the Bear River Bay waterfowl marshes, critical and normal deer and elk winter ranges, Cutler Marsh, Bear River Migratory Bird Refuge, riparian corridors of the Malad and Bear rivers, Conservation Reserve Program lands, and wetlands at the Harold Crane Wildlife Management Area and Willard Bay.

### ***Wildfire / Firebreaks***

The NBST corridor generally follows the mountain foothills along the urban and wildland interface, the place where the urban area meets and mingles with the natural landscape. This area is at high risk for unnatural wildfires because of the concentration of persons, activities, and infrastructure adjacent to this natural, undeveloped landscape. Although wildfire does play an important role in the ecology of the landscape, wildfire in the urban/wildland interface does require specific attention because of the area's

density of property and infrastructure. The primary concerns are protecting both property from fire coming down the mountain and protecting the wildlands from fire generated in the urban environment.

The NBST corridor has the potential to assist in the control of wildfires in the urban/wildland interface. The NBST corridor can be constructed to function as a firebreak. Forestry personnel with the State of Utah recommend that a firebreak consist of a 30-foot wide corridor in which existing vegetation is augmented with fire resistant native plant species (see Appendix F for plant list). Some large stands of existing fire-prone species may be removed. The NBST can be placed within this firebreak corridor, thus providing emergency access for small fire engines. The NBST could be developed as a firebreak along the urban, densely populated portions of the trail. The first NBST segment from Logan Canyon to Green Canyon will be constructed by Logan City using the above firebreak corridor plans with a 10-foot wide trail.